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The Economics of Grazing Livestock on Public Lands

Darwin Nielsen
Utah State University

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There is a wide spectrum of beliefs as to how good a deal it is to graze livestock on public lands. If you are a livestockman from a nonpublic land state, you probably would like to get some grazing where the fee is about one-tenth of what you have to pay. This would be the situation where private leases sell for $12 to $15 per AUM and public fees are $1.35/AUM. If you are a critic of government programs, you cannot understand why the fees do not cover the cost of the grazing program. If you are a public land rancher and you keep account of what it costs you to graze public lands, you contend that you are paying all it is worth. Each one of the perceptions of public land grazing have some validity depending on the perspective of the viewer.

Let me give you a perspective on grazing fees, both public and private, based on over 20 years experience and research that might shed some light on why there is so much diversity of opinion on the subject. The term "grazing fee" encompasses too many different lease arrangements to be meaningful in and of itself. Therefore, comparisons of grazing fees without defining what is included is misleading.

To illustrate this point, let us take an example from another segment of the economy, house rent. Assume two homes are the same size, the same age, and in about the same condition. Would one expect the rent to be the same on the two homes? Suppose one prospective renter works within a mile of one of the homes while the other is 15 miles away. One home is completely furnished and the landlord pays all of the utilities; the other is rented unfurnished and the tenant pays all utilities. It is possible

that one home could be located in a neighborhood where the crime rate is high and everything not nailed down is stolen. Obviously, one would have to know everything about the lease arrangements before direct comparisons of rent could be made, even though the products (the houses) are the same.

There is equally as much diversity in grazing leases. For example, Case I--the landlord performs all of the management of the rangeland and the livestock, including paying death loss above an agreed upon percentage. Case II--raw land is leased and the landlord does little more than collect the fees and pay the taxes. These cases represent the extremes while other leases cover the spectrum between these end points. As might be expected, grazing fees vary a great deal within this market, even though the product, an AUM, is fairly homogeneous.

At the present time, the money collected by the government in grazing fees is a relatively insignificant part of the total cost of grazing. In order to make legitimate comparisons of public and private grazing fees, one should look at the total cost to the user.

Data were collected from ranchers in all of the western public land states to estimate the total cost of leasing public lands and the total cost of leasing comparable private grazing lands. These cost items are averaged and summarized in Table 1.

Based on these data, the 1966 public grazing fee would be $1.23 per AUM if the goal was to collect full market value. In addition to the base fee, the fees would be kept current with private lease rates by an annual adjustment in fees based on an index of private lease rates in the west.

If one accepts the new philosophy of collecting full market value for all goods and services provided by the government, the above position

TABLE 1. Summary of Combined Average Public Costs and Private Costs per Animal Unit Month--1966[a]

Itemized Costs	Combined Public Costs	Private Costs	Combined Public Costs	Private Costs
	$	$	$	$
1. Lost animals	0.60	0.37	0.70	0.65
2. Association fee	0.08	--	0.04	--
3. Veterinary	0.11	0.13	0.11	0.11
4. Moving livestock to and from allotments	0.24	0.25	0.42	0.38
5. Herding	0.46	0.19	1.33	1.16
6. Salting and feeding	0.56	0.83	0.55	0.45
7. Travel to and from allotments	0.32	0.25	0.49	0.43
8. Water	0.08	0.06	0.15	0.16
9. Fence maintenance	0.24	0.25	0.09	0.15
10. Horse	0.16	0.10	0.16	0.07
11. Water maintenance	0.19	0.15	0.11	0.09
12. Development depreciation	0.11	0.03	0.09	0.02
13. Other costs	0.13	0.14	0.29	0.22
14. Private lease rate	--	1.79	--	1.77
Total Costs	3.28	4.54	4.53	5.66
Difference	1.26[b]		1.13[b]	
Weighted Average	1.23			

[a]Developed from data analysis of the grazing fees technical committee --November 29, 1968.

[b]The difference weighted by corresponding AUMs results in weighted average of $1.23.

on grazing fees appears fair and reasonable. Thus, one might ask why has the livestock industry put up such a determined fight against the new fee policy.

The livestock industry's main thrust in the grazing fee controversy has not been against the concept of the government charging full market value for the use of its grazing lands. The controversy has centered on the cost items used to arrive at the new base fee of $1.23 per AUM. They agree with the items listed in Table 1 but believe very strongly that one

major cost of grazing on public lands has been omitted. The authorization to graze public lands has taken on a value. This value shows up either as a permit value directly or as an increase in the value of the commensurate property of the rancher.

Most of the current public land grazing permittees have purchased their permits from other ranchers. Thus, the permit represents a capital asset, just like their other real property. It is the livestock industry's position that a "fair" grazing fee must take into account a return on the capital invested in the permit, which is a cost just as real as the other items listed in Table 1. If ranchers were allowed a 3 to 6 percent return on their investment in the grazing permit, there would have been no justification for an increase in the grazing fee base in 1966.

We have a case where both sides of an issue claim, with justification, that their position is fair and reasonable. This might help explain why there has been such a long hard battle between the agencies and the livestockmen over an issue that both sides admit has taken more time and energy than the dollars involved would justify.

The livestock industry was able to get a bill into the Congress on public lands. In this bill there was a section on grazing fees. The bill, now known as the "Public Rangelands Improvement Act of 1978," passed Congress and was signed by the President. The section pertaining to grazing fees is as follows:

> Sec. 6. (a) For the grazing years 1979 through 1985, the Secretaries of Agriculture and Interior shall charge the fee for domestic livestock grazing on the public rangelands which Congress finds represents the economic value of the use of the land to the user, and under which Congress finds fair market value for public grazing equals the $1.23 base established by the 1966 Western Livestock Grazing Survey multiplied by the result of the Forage Value Index (computed annually from data supplied by the Economic Research Service) added to the Combined Index (Beef Cattle Price Index minus the Price Paid Index) and divided by 100: Provided, That the annual increase or decrease in such fee for any given year

> shall be limited to not more than plus or minus 25 per centum of the previous year's fee (Public Rangelands Improvement Act of 1978).

The two new indices added to the fee formula by the "Public Rangeland Improvement Act of 1978" are based on ranchers' ability to pay. A difference of opinion about the long-term implications of adding these indices to the fee formula caused the 1985 review clause to be inserted into the Act. A summary of their reasons follows:

> The formula was established on a 7-year trial basis because "many groups and individuals concerned with the improvement of the range disagree with the concept of grazing fees dependent on beef cattle prices and the ranchers' ability to pay, and do not believe lower fees will eliminate overgrazing. This trial period will give all sides an opportunity to study the effects of tying the fee to beef prices, and also allow the Secretaries to refine their data on the value of Federal grazing lands as compared to privately-owned lands." (House Report No. 95-1122). At the end of the trial period, no later than December 31, 1985, the Secretaries are to report to Congress on the results of their grazing fee study.

It is not clear where the argument about the connection between grazing fees and overgrazing comes from. Given the usual amount of rancher discretion allowed in setting stocking rates on public lands (none), it appears there is no empirical evidence that fee levels and overgrazing are related.

A Presidential Order in 1986 set the minimum fee at $1.35/AUM and retained the grazing fee formula with the three indices. The current fee formula is as follows:

$$\text{fair market value} = \$1.23\ \frac{(FVI) + (BPI - PPI)}{100}$$

where $1.23 = 1966 base fee, FVI = forage value index, BPI = beef price index, and PPI = prices paid index.

The indices used to get the $1.35/AUM fee were based on the fee set for 1985 as follows:

$$\$1.23\ \frac{(242) + (262 - 395)}{100} = \$1.35$$

The nonfee costs of using public lands have increased substantially since the 1966 study. Costs of repeating the 1966 grazing fee study prohibit collecting new data to update these costs. It has been estimated that it would cost 3 to 4 million dollars to get this new information. An approximation of what these nonfee costs would be can be made by indexing the 1966 cost items up to the present time. An example of what these costs would have been in January 1987 is given in Table 2.

A mistake that many critics of public land grazing fee policies make is that they do not make their comparisons of public and private fees on the same basis. The total cost of using these lands should be used when comparisons are made. For example, the total cost of using public lands $12.04/AUM should be compared to private lease rates where the landlord provides all services. Instead, one usually sees $1.35 per AUM for public compared to $10 to $12 for private rangelands.

A continued controversy over public land grazing fees appears to be as inevitable as death and taxes.

All of the information presented on the cost of public land grazing is based on an average for all permittees. Thus, the data represents few ranchers exactly. There is a considerable amount of variation in any of the variables considered in valuing grazing. With this variable information available within this broad market area, one can find data to substantiate almost any position one wants to take. High nonfee cost ranches could be used to "prove" that public lands are hardly worth using. On the other hand, low nonfee cost ranches could be used to "prove" that ranchers are being subsidized by the government and creating unfair competition for nonpublic land ranchers.

TABLE 2. Fee and Nonfee Costs of Grazing Federal Lands (updated with January 1987 Index Numbers)

Item	1966	Index No.*		1977	Index No.	1987
Lost animals	$0.60	x 1.68	(meat animals/prices received)	= $1.008	x 1.46 =	$ 1.47
Association fees	0.08	x 2.01	(production items)	= 0.1608	x 1.43 =	0.23
Veterinarian	0.11	x 2.26	(wage rates)	= 0.2486	x 1.59 =	0.40
Moving livestock	0.24	x 2.30	(autos, trucks, & wage rates)	= 0.5520	x 1.78 =	0.98
Herding	0.46	x 2.26	(wage rates)	= 1.0396	x 1.59 =	1.64
Salting & feeding	0.56	x 2.10	(autos, trucks, & feed)	= 1.1760	x 1.70 =	1.99
Travel	0.32	x 2.18	(autos, trucks, fuel, & energy)	= 0.6976	x 1.77 =	1.23
Water	0.08	x 2.01	(production items)	= 0.1608	x 1.43 =	0.23
Fence maintenance	0.24	x 2.28	(wages, building, & fencing)	= 0.5448	x 1.47 =	0.80
Horse cost	0.16	x 1.86	(feed)	= 0.2976	x 1.43 =	0.41
Water maintenance	0.19	x 2.28	(wages, building, & fencing)	= 0.4313	x 1.47 =	0.63
Dev. depreciation	0.11	x 2.01	(production items)	= 0.2211	x 1.43 =	0.31
Other cost	0.13	x 2.01	(production items)	= 0.2613	x 1.43 =	0.37
			TOTAL NONFEE COSTS			= $10.69

1987 FEE COSTS

BLM & FS = $1.35/AUM

TOTAL COST 1987

BLM & FS = $1.35 + $10.69 = $12.04/AUM

*Indices taken from USDA, 1978, **Agricultural Prices: Annual Summary 1977**, Washington, D.C.: Economics, Statistics, & Cooperatives Service, June; and USDA, 1987, **Agricultural Prices**, Washington, D.C.: National Agricultural Statistics Service, January.

It appears that government budgets for grazing programs are not going to provide funds for maintenance (replacement) or new construction of range improvements on public lands. Permittees are being asked or will be asked (maybe required) to pay these costs as part of their grazing permit. If this is the case, the nonfee costs will increase because of new investments in public lands not just because the general price level of inputs has increased.

Because of the "nature of the beast," public lands have a double level management system. The agencies are required to manage the resources which include the allotments where livestock graze. In addition, the permittee is required to perform many land management functions. The agencies are paid for their management out of their grazing budgets. The permittees are paid through credit given in the nonfee costs. It is not surprising that grazing programs do not pay the cost to the government of maintaining them. Before the conclusion is reached that grazing should be terminated, one should consider the benefits. Rangeland, a renewable resource, has produced range forage which has been converted into useful products to support local, state, and national economies.

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